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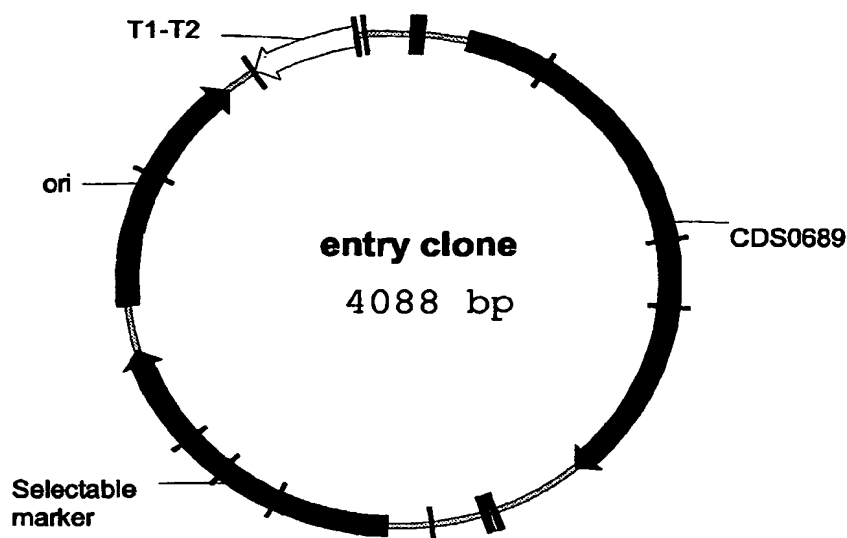


FIGURE 1

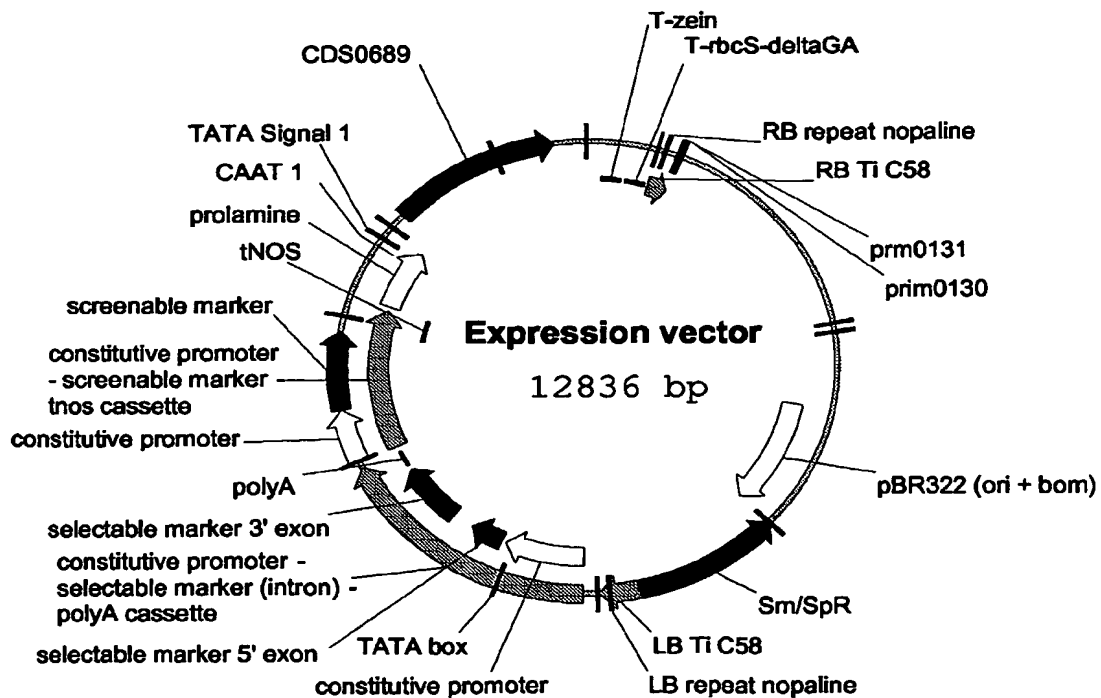


FIGURE 2

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		1	Motif 1	40
CDS0689		(1)	MSVLQYPEGIDPAVQVNNNAFNGESEDLSLKR	
CDS0689 At		(1)	MTSLATETLNAPPKQVNNNAFNGESEDLSLKR	
CDS0689 Medicago trunculata		(1)	MNNTNNNNILLHSTQVQVNNNAFNGESEDLSLKR	
CDS0689 Os		(1)	MEEDPLPLVHVNNNAFNGESEDLSLKR	
CDS0689 Ta variant		(1)	MMEEDPLPLVHVNTTNAFNGESEDLSLKR	
CDS0689 So		(1)	MEEDPLPLVHVNNNAFNGESEDLSLKR	
CDS0689 Zm variantrev		(1)	MEEDPLPLVHVNTTNAFNGESEDLSLKR	
CDS0689 So variant		(1)	MEEDPLPLVHVNNNAFNGESEDLSLKR	
CDS0689 Bn est1		(1)	MTSTEHTETLNAPFLOHNNNAFNGESEDLSLKR	
CDS0689 Eschscholzia californica		(1)	MLEISETLNPPLQVNNNAFNGESEDLSLKR	
CDS0689 Ga est1		(1)	MSVLQYPDSFNVPPLQVNNNAFNGESEDLSLKR	
CDS0689 Pt		(1)	MSSVLQYPDVVDAPVQVNNNAFNGESEDLSLKR	
CDS0689 Plumbao zeylanica		(1)	MNEVLHQEAARTDSSTHQVNNNAFNGESEDLSLKR	
CDS0689 Citrus sinensis		(1)	MSVLQYPDTLNGQVQVNNNAFNGESEDLSLKR	
Consensus		(1)	I E IPEVQIWNNAFD GDS S AI	
		41	Motif 2	80
CDS0689		(37)	--SWSPLKPLSVRPSDSEFESDLSSKQVOTLFFENS SVNLS	
CDS0689 At		(38)	SSWSHLN-----ESFDSKCS--QVQFISVSSSLQSS	
CDS0689 Medicago trunculata		(38)	IKELNPSAFN-----	
CDS0689 Os		(32)	---SP-----AFAVRKGDENHREVDV-----	
CDS0689 Ta variant		(33)	-----TPVRRGEKFNRRFAETN-----	
CDS0689 So		(32)	-----VPASRRREREGDKFNHRDPPD-----	
CDS0689 Zm variantrev		(32)	-----SPAPASARFEGGDKFNLRFPDV-----	
CDS0689 So variant		(32)	-----ARASGHEAFGDKFNHRDPPD-----	
CDS0689 Bn est1		(37)	-----SWSNLNLSFDSKCSKQVOTLFFENS SVNLS	
CDS0689 Eschscholzia californica		(35)	ASSSPLKPIVLNQSEPIILDSIYTHQVOTSCCISPVRTK	
CDS0689 Ga est1		(37)	SWCNFNS-----GSVNQSLSDGSKKQSLWIKSPVSK	
CDS0689 Pt		(38)	-----SWWNQSLSDGSKKQSLWIKSPVSK	
CDS0689 Plumbao zeylanica		(41)	---F-----SAPNLSQILLSDSSIKILSLSLAEMPHPAK	
CDS0689 Citrus sinensis		(37)	SWANLKS-----VYMNQSLSDGSKKQSLWIKSPVSK	
Consensus		(41)	S ESDG KEN P S	
		81		120
CDS0689		(75)	SPLPIKPLNPNGALENSRLKPNKPNKQSLDEMAARKSGK	
CDS0689 At		(69)	VSITEAPS-----AKSKTVTKSAADRSKK-----	
CDS0689 Medicago trunculata		(49)	---IVPS-----SNK-----	
CDS0689 Os		(53)	---VAAG-----	
CDS0689 Ta variant		(50)	-----	
CDS0689 So		(54)	-----	
CDS0689 Zm variantrev		(55)	-----	
CDS0689 So variant		(54)	-----	
CDS0689 Bn est1		(67)	VSFSTDDP-----IRCGVK-----EKPH	
CDS0689 Eschscholzia californica		(75)	SPLPIKPLHPNG-----	
CDS0689 Ga est1		(72)	STASVVKP-----LSSKNVTGNTREPFSAKMKSGVCKE	
CDS0689 Pt		(66)	NSSKPAKPLQ-----	
CDS0689 Plumbao zeylanica		(73)	SPMQK-----	
CDS0689 Citrus sinensis		(72)	KSCVPNKPLQVN-----SSVNSQMKQLK--SVSK	
Consensus		(81)		
		121	Motif 3: coiled coil	160
CDS0689		(115)	GNDFRDEKKIDEETIEIOMEISRLSSRLALRDEKAETV	
CDS0689 At		(94)	-----RDIDAEIEEVEKEIGRLSKKLESRLDEKAETA	
CDS0689 Medicago trunculata		(56)	-----RTIDAEIEEVEKEIGRLSKKLESRLDEKAETK	
CDS0689 Os		(57)	-----YDVEAEIGHIEAEILRLSSRLHHLRVSKQPEPN	
CDS0689 Ta variant		(50)	-----DADAIEARIEAEILRLSSRLHHLRVSKGHDAK	
CDS0689 So		(54)	-----DVEAEIGHIEAEILRLSSRLHHLRTSKQSEPS	
CDS0689 Zm variantrev		(55)	-----EEEMRHIEAEILRLSLRLHHLRTSQQLQPP	
CDS0689 So variant		(54)	-----DVEAEIGHIEAEILRLSSRLHHLRTSKQSEPP	
CDS0689 Bn est1		(86)	KTGKVRHGDIDAEIEEVEKEIGRLSKKLESRLDEKAETK	
CDS0689 Eschscholzia californica		(87)	-----	
CDS0689 Ga est1		(105)	EEKKRDEKKIDMEIEIEKEFARLSKLESRLDEKPNIMQ	
CDS0689 Pt		(76)	-----	
CDS0689 Plumbao zeylanica		(78)	-----	
CDS0689 Citrus sinensis		(100)	EEETRDERKIDIEIEIEKEISRLSSRLALRDEKIDIKT	
Consensus		(121)	ID EI IE EI RLSSRL LRL K	

FIGURE 3

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		401		440
CDS0689	(339)	IQSSVVRKRSLP	PENDKDESKRNDKKRSL	SVGKTRVSTES
CDS0689 At	(294)	TGEKDVVRKRSLPEDEE	KENHKRSEKR-----	RASDES
CDS0689 Medicago trunculata	(284)	GGD--	ARKRSFSEN-----	N
CDS0689 Os	(297)	AAAAATAKRMAGSSK	SVIPSRYSITPGISL	SSGAQERR
CDS0689 Hv contig 123	(111)	ISTASTCRRPAGSSK	SVVPSRYSIMPGSL	AATQDGR
CDS0689 Ta contig	(1)	-----	GRYSIMPGSL	GAASQERRR
CDS0689 Zm partial	(87)	TSNVATTKR	PAGSSKSVVPSRYSITPGISL	AVTQGNRC
CDS0689 Sacc sp 3'	(84)	TSNAATAKRPAGSSK	SVVPSRYSITPGISL	AVSQDKRS
CDS0689 Pinus taeda 3'	(1)	-----	-----	-----
Consensus	(401)		KR R RYSL PGA LG	
		441		480
CDS0689	(379)	KNL---	GRESRVKKRWEIPSEIVVHGNT	SEKSPLEIVK
CDS0689 At	(327)	K-----	SEGRVKKRWEIPSEVDLYSSGEN--	GDEPIVK
CDS0689 Medicago trunculata	(297)	KGL---	GSEIRAKKWEIPIEEVDVSG-----	FVM--
CDS0689 Os	(337)	KKQSLPGSSGDANQNEEIRAKV	IPSN--DPLSPOTISKV	
CDS0689 Hv contig 123	(150)	RKESLPGSTGTGQKEEIKAVTPEVD--	DDLSPESIDKV	
CDS0689 Ta contig	(21)	KESLPGSSGGAGQKEEIKAMPTEPVD--	DDLSPESIDKV	
CDS0689 Zm partial	(127)	KQS-----	LPGSATETRNLTPEPPNDE---	LSPEETAKV
CDS0689 Sacc sp 3'	(124)	KQS-LPGPASAASQREIRAKLTPEPK--	DELSPEETAKV	
CDS0689 Pinus taeda 3'	(1)	-----	XEARIIFGTGNSAIMAGGTKAPDTERH	
Consensus	(441)	K	GS R EI A E	LSPESL KV

## Motif 4

		481		520
CDS0689	(416)	PDLPRIRIARCVNEIL	ADSSPAFMIEL	GKRSFFSSDE
CDS0689 At	(359)	--EIPK	RTIRRVGGSPEDSGAAKVAELQ	-----
CDS0689 Medicago trunculata	(324)	---LPK	STMRFVDESPDSCAVKVAELNGRS	FCDED
CDS0689 Os	(375)	AEMEPK	RTMPPDESPDSCCAKRVADLVGRSFFTA	AA
CDS0689 Hv contig 123	(188)	AELPR	RTMPPRNETPDSCCAKRAADLVGRSFFAAA	
CDS0689 Ta contig	(59)	AELPR	RTMPPDESPDSCCAKRAADLVGRSFFAAA	
CDS0689 Zm partial	(158)	AELPR	RTMPPSDESPDSCCAKRVADLVGRSFFTA	AG
CDS0689 Sacc sp 3'	(161)	AELPR	RTMPPASDESPDSCCAKRVADLVGRSFFTA	AX
CDS0689 Pinus taeda 3'	(29)	KMKPR	KTVRFETTESPDSCICREIDRC	GKRSFFAPDE
Consensus	(481)	AELLPRIRTMP	DESPDSCCAKRVADLVGRSFF	AAA
		521		560
CDS0689	(456)	-----	DKEPPVCQVLSFAFEDAEEE-----	
CDS0689 At	(389)	-----	DRNFTFCQILKFEE-----	
CDS0689 Medicago trunculata	(361)	EEERV	VMVEEGGSVCQVLFADDDDDDDYGEQG-----	
CDS0689 Os	(415)	-----	EDGRALDVEIPPAVEA-----	
CDS0689 Hv contig 123	(228)	AGD---	GSAISSYQARVLEAFAPEEAAAAGALSDEAAAAG	
CDS0689 Ta contig	(99)	AGD---	CSAISSYQARVLEAFAPEEAAAAGALSDEAASA	
CDS0689 Zm partial	(198)	DDG---	NLVTPYQARVLELESPEAAAEAEA-----	
CDS0689 Sacc sp 3'	(201)	EDG---	NFVTPYQAPVGLL-----	
CDS0689 Pinus taeda 3'	(69)	ITST--	PSIDXKDAGEPLRRESVHEIXHAXXX-----	
Consensus	(521)		ARVLE EA E	
		561		592
CDS0689	(476)	-----	-----	
CDS0689 At	(403)	-----	-----	
CDS0689 Medicago trunculata	(395)	-----	-----	
CDS0689 Os	(432)	-----	-----	
CDS0689 Hv contig 123	(265)	ALSDEAAAAAAAEAL	SDEAAAAEALSDEAAA	
CDS0689 Ta contig	(136)	GEALGDEAAA	-----	
CDS0689 Zm partial	(226)	-----	-----	
CDS0689 Sacc sp 3'	(217)	-----	-----	
CDS0689 Pinus taeda 3'	(99)	-----	-----	
Consensus	(561)			

FIGURE 3 (continued)

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**SEQ ID NO 1: *Nicotiana tabacum* seedy1 coding sequence (CDS0689)**

atgagtgtgttacaatacccagaagggattgaccagcagatgttcagatatggaacaatgc  
agcatttgataatggagattctgaagatttgtcttcgctgaaacgttcttggtctcctctga  
aacccttttcggttaggcatcagattcctttgaatctgatttgtcaagtaaggaaaatcaa  
actcctttatttgagaattcatctgttaatctctcatctccgttaccataaagccacttaa  
ccctaattggggctctggaaaattcaagactcaagccgaacaagcccaattccaaacagagtc  
ttgatgagatggcggctagaaagagcggaaagggaaatgatttccgtgatgagaagaaaata  
gacgaggaaattgaagaaattcagatggagattagtaggttgagttcaagattagaggcttt  
gagaattgaaaaggctgagaaaactgttgctaagactgttgaaaagcgaggaagggttggtg  
cagcaaagtttatggagccaaaacaaagtgttattaagattgaagagcgtatatcaatgagt  
gcaagaacaaaggtggagcagagaaggggtcttagtttaggaccatctgagatttttactgg  
aacgcggcggcgaggggttgagtatggggccatcagatattctagcagggacaacaaaggcac  
ggcaattgggaaagcaagagatgattattactcctattcagccaatacaaaacaggcgaaag  
tcgtgtttttggaagcttcaagagattgaagaagaggggaaaaagttcaagccttagtcctaa  
atcaagaaaaactgctgcaagaacaatggttacaacaaggcaggcagttactacaattgcat  
caaagaagaatttgaaaaaagatgatggacttttgagttcagttcagccaaagaagttgttt  
aaagatctcgaaaagtctgctgctgctaataagaagccccagaggccggggaggggttggtggc  
tagtaggtataatcagagtacaattcagtcatcagtagtgagaaagaggtctttacctgaaa  
atgataaggatgagagtaagagaaatgataagaaacgggtcgttatctgtagggaaaacgcgt  
gtgtctcaaaactgagagcaagaatttgggtactgaaagtaggggtgaaaaagagatgggaaat  
tcctagttagattgttagttcatggaaacacagagagtgagaaatctccactaagcattattg  
tgaagcctgatttgcctccgcgaattaggattgctcggtgtgtgaatgagactcttagggat  
tctggacctgctaaaagaatgatagagttgataggcaagaaatcgtttttcagtagtgatga  
agataaggagccacctgtctgtcaagttttaagttttgcagaggaagatgctgaagaggaat  
aa

**SEQ ID NO 2: *Nicotiana tabacum* seedy1 protein (CDS0689)**

MSVLQYPEGIDPADVQIWNNAAFDNGDSEDLSLKRWSPLKPLSVRPSDSFESDLSSKENQ  
TPLFENSSVNLSSPLPIKPLNPNGALENSRLKPNKPNQSLDEMAARKSGKGNDFRDEKKI  
DEEIEEIQMEISRLSSRLEALRIEKAECTVAKTVEKRGRVVAKFMEPKQSVIKIEERISMS  
ARTKVEQRRGLSLGPSEIFTGTRRRGLSMGPSDILAGTTKARQLGKQEMIITPIQPIQNRK  
SCFWKLQEIEEEGKSSSLSPKSRKTAARTMVTTRQAVTTIASKKNLKKDDGLSSVQPKKLF  
KDLEKSAAANKPQRPGRVVASRYNQSTIQSSVVRKRLPENDKDESKRNDKKRSLSVGKTR  
VSQTESKNLGTESRVKKRWEIPSEIVVHGNTSEKSPLSIIVKPDLLPRIRIARCVNETLRD  
SGPAKRMIELIGKKSFFSDEDKEPPVCQVLSFAEEDAEED

**FIGURE 4**

**SEQ ID NO 3: *Oryza sativa* seedy1 coding sequence**

[illegible]

**SEQ ID NO 4: *Oryza sativa* seedyl protein**

MEEDPLIPLVHVWNNAAFDDSSCSRSAWLPQSPAAVAVRKGDKENHRPEVVDVAAGYDVEAE  
IGHIEAEILRLSSRLHHLRVSKQPEPNRDDAPMGEMVAKVRPRPRGLSLGPLDVISIVNREK  
HPLRTKQPPATRGRGLSLGPMEIAAANPRVPAAAQHQQQQRAGTARILKPIKEPPVQRRRGV  
SLGPLEIHHGVGSKAPAAARAKPFTTKLNAIREETRPSKQFAVPAKPWPSSNTRQTLDSRQG  
TAASRAKARSPSPRRRQSNKGATDTRGGNKVVDELKPKGASSSQSGSAAAAATAKRMAGSS  
KMRVIPSRYSLTPGASLGSSGAQERRRKQSLPGSSGDANQNEEIRAKVIEPSNDPLSPQTIS  
KVAEMLPKIRTMPPPPDESPRDSGCAKRVAELVGKRSFFTTAAAEEDGRALDVEAPEAVAEA

**FIGURE 4 (continued)**

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**SEQ ID NO 5: *Medicago trunculata* seedy1 encoding sequence**

aaaaacgttaaggactaaaaatataataaaaatttaagtagggattcataatggaagcacc  
tatttacagggatcttaaatataattaaccctaataatttatgacagaaacccttttgaaatc  
acatcgagcgtgtatgagtagccgtttcacatccaacggccagtaagagcgttaactttatt  
tcttccctcttcaatctccaacgggtcacataatctcttccaaatacaataattccctcttt  
caacctcactcttcatttcttcaacccaaacccaaaaaactaatcagattcttcttaaactc  
tgaaaccttttctccaaaagcacttaataaaaaaagcacttaaccatgaataacacaaacaa  
caacaacattcttcttcattccacacaggttcaagtgtggaacaacgcagcattcgatggtg  
aagatttgcgatgaattcatcttctgattccatcaaagagaatctaaaccatccgcattc  
aacattgttcttcttcaacaaaaagaactattgatgatgaaattgcggaattgaaagtga  
aattaagcgattaacttcgaagctggaattgcttctgtgtgaaaaagctgaaagaaaaatcg  
cttctgaaaaagcgtgttagtggaattggtactggaagaatagtagcagcgaagtttatggaa  
ccgaagaaaaacgttacaccgaaacgaaacgggtgtcgttttcaaggaggagacaccgaaacg  
aaacgggtgtcgtttcggatacgcggaatctaggggttaattggagaagagggatgagtttag  
gtccgatggagattgccgggaaagtgtatggcaccgcggcgatgacgattactccggcgacg  
gtgaatcggaggaagtcttgtttctggaaaccgcaggaaagttgtgaagtaatgccgtcggg  
gattactccggcgacgggtgaataggaggaaatcttgttttttgaaacctcaagaaagttgtg  
aagaaaaatcgaagaaaaacgatttgcaaaccgaatttgaaattgaattcaaattcagttaat  
tctgcggttggtatcgattaagcgtgtgaagaagaaagatgaagaaattgctcaggttcaacc  
gaagaagctgtttgaaggtgaaaaatcagtgaagaaatcgttgaaacaaggtagaattgttg  
caagccggtataattccggtggtggtggtggtgatgcgaggaaaagatcgttttcggagaat  
aataagggtttagggagtgaatcagggctaagaagagatgggagataccaattgaagaagt  
ggatgtgagtggttttgttatgttaccgaagatttcgacaatgaggtttgttgatgagagtc  
ctagagattctggtgctgtttaaagagttgctgaattgaatggaaaaagatcttacttttgt  
gatgaagatgaggaggagagagtgatggtggaggaagaaggtggttctgtttgtcaggtttt  
gaattttgctgaagatgatgatgatgatgattatggtgaacaagggtaattgtggaaat  
tggaattgatttgtttttgtggggtgtgtggaactggctatgttctgcttgattcttttgc  
attttgggtgtgaaactaaagatgaggtgaaaagtttatgcttgttaaattggattggtttat  
atgttttgaaataataacaacaagcatgtgtcttgccttaataattgtatatattgttttgttg  
ttttataatgatattgatttaatttgtatacacataatataatagtatgcattgagagagtt  
tttcgttcagttattcattctgatttttagtgtttatctcattctagaagattgtattttgttg

**SEQ ID NO 6: *Medicago trunculata* seedy1 protein**

MNNTNNNNILLHSTQVQVWNNAAFDGEDFAMNSSSDSIKENLNPSAFNIVPSSNKRITIDDEI  
AEIESEIKRLTSKLELLRVEKAERKIASEKRVSGIGTGRIVAAKFMEPKKNVTPKRNGVVFK  
EETPKRNGVVS DTPKSRVNWRRGMSLGPM E IAGKVMAPPAMTITPATVNRRKSCFWKPQESC  
EVMPSGITPATVNRRKSCFLKPQESCEENRRKTICKPNLNLNSNSVNSAVGSIKRVKKKDEE  
IAQVQPKKLFEGEKS VKKSLKQGRIVASRYNSGGGGDARKRSFS ENNKGLGSEIRAKKRWE  
IPIEEVDVSGFVMLPKISTMR FVDESPRDSGAVKRV AELNGKRSYFCDEDEEERVMVEEEGG  
SVCQVLNFAEDDDDDDDDYGEQG

**FIGURE 4 (continued)**

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**SEQ ID NO 7: *Saccharum sp.* encoding sequence (partial 5' end)**

Cgcaccgcgagttttcgaaaaaccaacctatcgcgccctcagatcacgcgaggacgcgagggga  
agcaggaatccctccgctcccagccgcctcctccgctcacccatcgatcgatcggtccgtccg  
gtccagggggctctccggcggcggtggcgatggaggaggaccgctcatcccgtggtgcac  
gtctggaacaacgcgccttcgaccacgcctcctcctccgctggcacgcccactcccctgt  
gcccgcgagcgcacgtcgcgaggcggaggggggacaaggagaaccaccgccccgaccccgacc  
ccgacgtcgaggcggagatcgggccacatcgaggcggagatcctgcgcctgtntctcccgcctn  
caccaccttcgcacctccaagcagtcggagccgtccaagcgcggagaggtcgcgccccgcgc  
cgcggcgaaggcgaagcggcgggcgggcgggcggtgcggacgcggggggtcagcctgggccc  
cgctcgacgtcgccgctgcggtaaccccaaccgctcaccaccgacaaccagcagcagcag  
ccgctgcccgcgaggggtctgaagccgatcaagcaggccacggcgggcgggcgaagggcgt  
aagacttggggccccttcgacatggtcggcgcggaaccctagggtccctccgccc

**SEQ ID NO 8: *Saccharum sp.* seedyl protein (partial N-term)**

MEEDPLIPLVHVWNNAAFDHASSAWHAHSPVPASARREAE GDKENHRPDPDPDVEAEIGHI  
EAEILRLXSRLHHLRTSKQSEPSKRGEVAPAPAAKAKAAAAARLRGLSLGPLDVAAAGNP  
NPLTTDNQQQPPRAAQGLKPIKQATAAAGKGVRLGPLRHGR

**SEQ ID NO 9: *Zea Mays* seedyl encoding sequence (partial 3' end)**

ccacgcgtccggccggttcgagaggaggaaggccagcgttccaaggagcacgcgcgtccccgcc  
agaccgtggccatccagcaatgccaggcaccactggatgccaggcaaggcaccgcagcaag  
cagagccaaggcgcgaggagcgggagcataagccccagcaggttcaggaggcagtcacttcca  
aggctgccgagacaagagcgggaaatgccaaagcctacagaggcgacgaggggagggagcgaa  
gcggtcaatcacaccagcaatgtagccacgacgaagaggccggcggggagctccaaggctcag  
ggttgtcccgagccgctacagcatcccacctgggtcctccctagcagctgtgacacaaggca  
accgatgcaagcagtcctctcccaggatcggtctactgagaccagagtaaatctcactgagccg  
ccgaacgacgagttgtctcctgaagaacttgccaagggttcagagctgctcccaaggattag  
gaccatgccgccttctgatgagagcccgcgtgactcgggatgtgccaagcgtgttgctgatt  
tggtcgggaagcgatccttcttctactgctgcaggggacgatggcaatctcgttacgccctac  
caggcacgggtggttgaaacttgaaatcaccgcaggcagcagcagaagaagcagaagcttgaga  
agtttgtctttgatcaattccgaagtggcttgcatctgggcgtggcctctttttgcagtggtg  
tgctactacatagttctactgttacattcatatcatatcacatttctattttttcccccttg  
agacattgcttagtacttttgtgttgcccttggtgaaaagagagtgggaagggtcatctgctgat  
nccttggt

**SEQ ID NO 10: *Zea Mays* seedyl protein (partial C-term)**

TRPAVREEEGQRSKEHAVPARPWPSSNARHPLDARQGTAASRAKARSGSISPSRFRQSTSK  
AAETRAGNAKPTAETRGGSEAVNHTSNVATTKRPAGSSKVRVVPSTRYSIPGSSLA AVTQGN  
RCKQSLPGSATETRVNLTEPPNDELSPEELAKVAELLPRIRTMPPSDESPRDSGCAKRVADL  
VGKRSFFTAAGDDGNLVTPYQARVVELESPEAAAEAE

**FIGURE 4 (continued)**

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**SEQ ID NO 11: *Arabidopsis thaliana* seedy1 coding sequence**

atgacatcaattgaggcaacagaaacgcttaacgctcctccaaagcttcagatctggaacaa  
cgctgccttcgacgatggagattctcaaatcacttcgccatcgaagcttcttcttggtctc  
acctcaacgaatcattcgattccgattgtagcaaggagaatcagtttccgatttcggtttcc  
tcttcgctccaatcctcagttctcgatcacccaagctccgctcagcaaaaatccaagaccgtgaa  
gaccaaatccgccgcagatcggagtaaaaagcgagatatcgatgcagagatcgaagaagtag  
agaaggagatcggacgattatcgacgaaattggagtcgctccgattagagaaggcggagcaa  
accgcaagaagcattgctatacgtggaagaatcggtccggcgaagttcatggaatcatctca  
gaaacaagtgaattcgacgattcgtgttttacaggatcgaaatcaagagccactcgtagag  
gcgttagtcttggaaccagcggagatattcaattccgcgaagaaatctgaaactgtgactcct  
cttcaatcagctcagaatcgacgcaagtcctgtttctttaagcttcttggaaatcgaagaagg  
tcaagtgcacgacacgaggtaaagggaagaacgagtttgagtcctgagtcgcgagatctcgaaag  
cgaaaatgacggcagctcagaagcaagcagctacgacggtgggtcaaagagagctgtgaag  
aaagaagaaggagttctcttaacaatccagcctaagaggctattcaaagaagatgaaaagaa  
tgtttctttaaggaaaccattgaaaccaggaagagttgtggctagtaggtacagtcaaattgg  
gtaaaacgcgactggagagaaagatgttaggaaaaggctcgttgcttgaggatgaagagaaa  
gagaatcataagaggtcggagaagagaagagcttctgatgaaagtaacaagagtgaagggag  
agtgaagaagagatgggagattccaagtgaagttgatctgtatagcagtggtgagaacggtg  
acgagtcctcctatagttaaggagctacctaagatcagaacgcttcgtcgtgtgggagggagc  
cctcgtgattcaggtgctgctaagagagttgcagaattacaagccaaggatcgtaacttcac  
tttttgccagcttctgaagtttgaagaatgaatgatccgcttatcaatttgagtaaaatcca  
caactcttggttggtt

**SEQ ID NO 12: *Arabidopsis thaliana* seedy1 protein**

MTSIEATETLNAPPKLQIWNNAAFDDGDSQITSAIEASSWSHLNESFSDSCSKENQFPISVS  
SSLQSSVSITEAPSAKSKTVKTKSAADRSKKRDIDAEIEEVEKEIGRLSTKLESRLLEKAEQ  
TARSAIRGRIVPAKFMESSQKQVKFDDSCFTGSKSRATRRGVSLGPAEIFNSAKKSETVTP  
LQSAQNRRKSCFFKLPGIEEGQVTRGKGRTSLSLSPRSRKAKMTAAQKQAATTVGSKRAVK  
KEEGVLLTIQPKRLFKEDKNVSLRKPLKPGRVVASRYSQMGKTQTGEKDVRKRSLPEDEEK  
ENHKRSEKRRASDES NKSEGRVKKRWEIPSEVDLYSSGENGDESPIVKELPKIRTLRRVGGS  
PRDSGA AKRVAELQAKDRNFTFCQLLK FEE

**FIGURE 4 (continued)**

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**SEQ ID NO 13: Sequence of the [PRO0090 - CDS0689 - terminator] expression cassette**

cttctacatcggccttaggtgtagcaacacgactttattattattattattattattattatt  
attttacaaaaatataaaatagatcagtcacctcaccacaagtagagcaagttggtgagttat  
tgtaaagttctacaaagctaattttaaagttattgcattaaactatttcatattacaaacaa  
gagtgatcaatggaacaatgaaaaccatatgacatactataattttggttttattattgaaat  
tatataattcaaagagaataaatccacatagccgtaaagttctacatgtggtgcattacca  
aatatatatagcttacaaaacatgacaagcttagtttgaaaaattgcaatccttatcacatt  
gacacataaagtgagtgatgagtcataatattattttcttgctacccatcatgtatatatg  
atagccacaaagttactttgatgatgatatacaagaacatttttaggtgcacctaacagaat  
atccaaataatatgactcacttagatcataatagagcatcaagtaaaactaacactctaaag  
caaccgatgggaaagcatctataaatagacaagcacaatgaaaatcctcatcatccttcacc  
acaattcaaataattatagttgaagcatagtagtaatttaaactcaactagggatatcacaagt  
ttgtacaaaaaagcaggctggtaccggtccggaattcccgggatatcgtcgacccacgcgtc  
cgctgacgcgtgggttcactacatcaagacatctactacactcatcttttttgacttatt  
gggtgtaaatttttgaaaccagttgagaaaaatgagtggttacaataaccagaagggatt  
gaccagcagatgttcagatatggaacaatgcagcatttgataatggagattctgaagattt  
gtcttcgctgaaacggtcttggtctcctctgaaaccctttcggttaggccatcagattcct  
ttgaatctgatttgtcaagtaaggaaaaatcaaactcctttatttgagaattcatctgtta  
ctctcatctccgttaccataaagccacttaaccctaattggggctctggaaaattcaagact  
caagccgaacaagcccaattccaacagagtcctgatgagatggcggctagaaagagcggaa  
agggaatgatttccgtgatgagaagaaaaatagacgaggaaattgaagaaattcagatggag  
attagtaggttgagttcaagattagaggctttgagaattgaaaaggctgagaaaactgttgc  
taagactgttgaaaagcaggaaggggtgtggcagcaagtttatggagccaaaacaaagtg  
ttattaagattgaagagcgtatatcaatgagtgcaagaacaaaggtggagcagagaaggggt  
cttagtttaggaccatctgagatttttactggaacgcggcgagggttgagtatggggcc  
atcagatattctagcagggacaacaaaggcagcgcaattgggaaagcaagagatgattatta  
ctcctattcagccaatacaaaaacaggcgaaagtcgtgtttttggaagcttcaagagattgaa  
gaagagggaaaaagttcaagccttagtcctaaatcaagaaaaactgctgcaagaacaatggt  
tacaacaaggcaggcagttactacaattgcatcaaagaagaatttgaaaaagatgatggac  
ttttgagttcagttcagccaaagaagttgtttaagatctcgaaaagtcgtgctgctgcta  
aagaagccccagaggccggggagggtgtggctagtaggtataatcagagtacaattcagtc  
atcagtagtgagaaagaggtctttacctgaaaatgataaggatgagagtaagagaaatgata  
agaaacggtcgttatctgtagggaaaacgcgtgtgtctcaaactgagagcaagaatttgggt  
actgaaagtagggtgaaaaagagatgggaaattcctagttagattgtagttcatggaaacac  
agagagttagaaaatctccactaagcattattgtgaagcctgatttgcttccgcgaattagga  
ttgctcgggtgtgtgaatgagactcttagggattctggacctgctaaaagaatgatagagttg  
ataggcaagaaatcggtttttcagtagtgatgaagataaggagccacctgtctgtcaagttt  
aagttttgcagaggaagatgctgaagaggaataatgtgtaataaaggagctgctaactctt  
ttcatgctctttcaattttcaatcctgccttttaatttttggttcattcgtgccttttaattg  
aatggggaagcattcttttgcttctcctcaaactggtattctagcttctgaattacattgtatg  
gtacaatatgaataaggttttgtcttccggcaggttggtccaagttagtttttagcttaaaat  
agatgcggcagcggccgctctagagtatccctcgaggggccaagcttacgcgtacccagct

**FIGURE 4 (continued)**

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ttcttgtacaaagtgggtgatatcacaaagcccggtcttctagggataacagggtaatta  
tatccctctagatcacaaagcccggtcttctacgatgattgagtaataatgtgtcacgc  
atcaccatgggtggcagtgatgagcaatgacctgaatgaacaattgaaatgaaaaga  
aaaaaagtactccatctgttccaaattaaaattcatttttaaccttttaatagggtttatacaa  
taattgatatatgttttctgtatatgtctaatttgttatcatccgggcggtcttctagggat  
aacagggtaattatatccctctagacaacacacacaaataagagaaaaaacaataatatt  
aatttgagaatgaacaaaaggaccatatcattcattaactcttctccatccatttccatttc  
acagttcgatagcgaaaaccgaataaaaaacacagtaaattacaagcacacaaatggtaca  
agaaaaacagttttcccaatgccataatactcgaaac

**SEQ ID NO 14: rice prolamin RP6 promoter sequence**

ccttctacatcgggttaggtgtagcaacacgactttattattattattattattattattat  
tattttacaaaaatataaaatagatcagtcacctcaccacaagtagagcaagttggtgagtta  
ttgtaaagttctacaaagctaattttaaagttattgcatttaacttatttcatattacaaaca  
agagtgatcaatggaacaatgaaaaccatatgacatactataattttgtttttattattgaaa  
ttatataattcaaagagaataaatccacatagccgtaaagttctacatgtggtgcattacca  
aaatatatatagcttacaaaacatgacaagcttagtttgaaaaattgcaatccttatcacat  
tgacacataaagtgtgagtgatgagtcataatattatttttcttgctaccatcatgtatatat  
gatagccacaaagttactttgatgatgatatacaagaacatttttaggtgcacctaacagaa  
tatccaaataatatgactcacttagatcataatagagcatcaagtaaaactaacactctaaa  
gcaaccgatgggaaagcatctataaatagacaagcacaaatgaaaatcctcatccttcac  
cacaattcaaataattatagttgaagcatagtagtagaataccaacaaca

**SEQ ID NO 15: Motif 1 CORE SEQUENCE**

WXNAXXD

**SEQ ID NO 16: Motif 2 CORE SEQUENCE**

KENXXP

**SEQ ID NO 17: Motif 3 (coiled coil) CORE SEQUENCE**EX<sub>1-6</sub>EXXRLXXXLXXLR**SEQ ID NO 18: Motif 4 CORE SEQUENCE**LPXIX<sub>1-10</sub>RDSGXXKRX<sub>1-6</sub>K**FIGURE 4 (continued)**